

**Property:** Criminal Justice  
**Site:** Courthouse Complex\*

**Asset:** Courthouse\*  
**Asset Number:** 10

**Assets are ordered by** Asset Name

**Currency:** USD

## Statistics

<b>FCI Cost:</b>	73,788,507	<b>FCI:</b>	0.28
<b>RI Cost:</b>	73,788,507	<b>RI:</b>	0.28
<b>Total Requirement Cost:</b>	73,788,505		

<b>Current Replacement Value</b>	260,396,720	<b>Address 1</b>	901 N. 10th Street
<b>Size</b>	703,347 SF	<b>Address 2</b>	-
<b>Year Constructed</b>	1932	<b>City</b>	Milwaukee
<b>Year Renovated</b>	-	<b>State/Province/Region</b>	WI
<b>Commission Date</b>	-	<b>Zip/Postal Code</b>	53223
<b>Decommission Date</b>	-	<b>Architect</b>	-
<b>Ownership</b>	Client Owned	<b>Historical Category</b>	Eligible
<b>Floors</b>	8	<b>Construction Type</b>	WAC 5A Exterior Masonry - Protected
<b>Type</b>	Building	<b>Use</b>	Courthouse
<b>ACM Inspection Date:</b>	02, Nov 2012	<b>Asbestos Inspected:</b>	Yes

## Photo



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## Asset Description

### Architectural:

Completed in 1931, the neoclassic Milwaukee County Courthouse is a fine example of twentieth-century classical design. The Milwaukee County Courthouse is located on North 9th Street between West Wells and West State streets in the downtown area. The building is eight stories in height with a basement and ground floor. In addition mezzanines are located at the first, fourth, fifth, sixth, and seventh floors. The basement and eighth floors are primarily mechanical,

storage and maintenance spaces; the ground, first, second and third floors are governmental and related offices; and the fourth through seventh floors are primarily courtrooms and related offices. The mezzanines house offices and jury deliberation rooms.

The Courthouse has access to the Mac Arthur Square underground parking garage via a basement level tunnel, though the two buildings are not physically connected. A skywalk located on the north side of the building provides access to the Criminal Justice Facility and to the Safety Building. The skywalk on the west side affords access to the Annex.

The building is roughly rectangular with projecting center sections on the east and west facades. The building is surrounded by a plaza that allows entry on all four sides. Eight light courts extend through the building to provide natural light to offices and courtrooms. Two banks of four passenger elevators each and one service elevator serve the building. Stairways are located throughout the building.

The building structure is a combination of steel beam and girder construction with cast-in-place reinforced concrete slabs. Exterior cladding consists primarily of limestone panels. Several of the penthouses are clad in brick and there are 2 - 3 story limestone columns on each facade backed with ornamental metal gratings. Windows are anodized aluminum framed on the exterior walls. The windows in the light courts are the original steel sash type units.

Interior finishes consist of marble flooring and walls at public corridors, and vinyl flooring and carpet, plaster and drywall partitions, and plaster and suspended acoustical tile ceilings. Several areas of the building have a variety of wall partition systems in them. The courtrooms have raised wood paneling at the walls. A considerable amount of remodeling has taken place in the office areas of the building.

#### Utility Services:

**Electrical:** The electrical utilities are served by WEPCO manholes on the west side of the building and are transformed and distributed from a large basement substation. A second multi-voltage substation is located on the seventh floor between the banks of elevators. The service voltage of 13.2 kV is transformed down to 240V (3-phase, ground B) , 120/208V 3-phase/4-wire and 480V 3-phase.

**Water:** Two 6" domestic water mains serve this building. One enters the basement level of the building on the east side, the other on the west side. Domestic hot water is generated by a tube in shell heat exchanger with an associated storage tank, located in the basement mechanical room.

**Sanitary Sewer:** Two City sewer mains serve this building (size is estimated at 12" for each), they exit at the east side of the building.

**Steam:** A 12" (estimated size) steam main serves this building, it enters the building in the corner of the south west utility tunnel. Steam is purchased from Wisconsin Electric Power Company.

#### Hazardous Material

An asbestos inspection was conducted in 2010 by Jackson MacCudden and found asbestos in the building. Jackson MacCudden also did some post-abatement air sampling in 2011 and 2012. Jackson MacCudden also did some asbestos inspections in 2007 in the Corporation Counsel Area, and found asbestos. Jackson MacCudden found asbestos in the Courthouse Mezzanine in 2007. In 2006 Milwaukee Lead/Asbestos inspected the basement and found asbestos. Jackson

MacCudden inspected to roof in 2002 and found asbestos.

#### HVAC Systems:

H.V.A.C for this building consists of four medium pressure variable air volume (VAV) dual duct air handling units (AHU's), two located in the ground level mechanical rooms and two additional air handling units located on the eighth floor mechanical rooms of the building. All AHU's are equipped with chilled water coils which are supplied with chilled water from four 325 ton chillers located in the eighth floor mechanical room. Four blow-thru cooling towers located on the roof of the building reject heat from this system. Chilled water and condenser water pumps associated with the chilled water systems are located in the same eighth floor mechanical rooms which house the chillers.

The hot decks of all four AHU's are equipped with steam heating coils which are supplied steam from Wisconsin Electric Power Company.

The AHU's supply medium pressure air to terminal mixing boxes which are controlled using local thermostats. The boxes supply low pressure air to galvanized sheet metal ductwork and ceiling mounted light troffers style supply diffusers with perforated diffusers used in limited areas. The courtrooms utilize large (approximately 5'-0" diameter) round diffusers. The air handling systems utilize return/exhaust fans which are located in the mechanical rooms with their associated supply AHU. Air is returned back to the AHU's using a ceiling ducted return air system.

In addition to the four VAV air handling systems, this building utilizes constant volume fans to serve the main corridor areas of the building. These systems are equipped with steam coils and deliver low pressure air to the urns which are located at the building's entrances.

To supplement the air handling systems, most perimeter areas utilize steam radiators for heating. In most areas of the building, enclosures have been built around the radiators to improve their aesthetic properties. These enclosures utilize linear bar type diffusers on the top of the enclosures to supply heat to the rooms.

#### Plumbing:

Plumbing for this building consists of a combination of galvanized steel, brass, and copper for the domestic water supply piping and cast iron for the waste and vent piping. Lavatories, water closets and urinals are pottery ware construction, water closets and urinals utilize flush-o-matic type valves. Domestic water booster pumps located in the basement mechanical room boost the city water pressure for the building. Domestic hot water is generated using tube in shell heat exchangers with an associated domestic hot water storage tanks. In addition a 225 gallon PVI steam water heater is used for the dishwasher. These systems are supplied steam from Wisconsin Electric Power Company.

#### Fire Suppression:

Fire suppression for this building consists of standpipe risers and fire hose cabinets. There is no sprinkler system for this building.

#### Electrical:

##### Lighting:

The re-lighting of this facility reflects a beautiful grand building, and, with few exceptions, the lighting is very good both in terms of aesthetics and energy efficiency. The exceptions occurred mainly in the penthouse areas and are noted in the deficiency reports. The use of parabolic reflectors on 2' x 4' recessed fluorescent fixtures in most of the remodeled areas was an excellent choice for the tasks performed in those areas as well as for appearance. The large hanging glass bowls in courtrooms and hanging glass balls in corridors, which use both PL and HID lamping, add to the splendor of the building.

The maintenance staff has done an excellent job of re-lamping the HID fixtures, as color can vary significantly from lamp to lamp and manufacturer to manufacturer.

Control of energy consumption through the use of rectifiers, diodes and motion sensors was also noted throughout the building. A few small, out-of-the-way rooms with low-wattage incandescent lighting could be converted to PL lighting or be equipped with motions sensors, but this was not addressed as they would save very little energy. Throughout, energy conservation through the use of efficient lamps and mechanical means has been given a conscientious effort.

While complimentary to the building design, exit lighting appears to fall slightly short of code requirements in terms of letter size. Nonetheless, these signs clearly indicate the exits. Given this fact, and the knowledge that classical exit fixtures are hard to come by, this deficiency was not noted.

#### Power:

Power is received from WEPCO manholes on the west side of the building and is transformed and distributed from a large basement substation. A second multi-voltage substation is located on the seventh floor between the banks of elevators. The service voltage of 13.2 kV is transformed down to 240V (3-phase, ground B) , 120/208V 3-phase/4-wire and 480V 3-phase. Power risers are located in a chase space adjacent to the elevator shafts. Power distribution throughout the building utilizes abundant space in chases, crawl spaces and mezzanines.

Emergency power is provided by a 150kW Kohler diesel generator located in the tunnel area on the far west center side of the basement, near the plumbing shop. The generator provides emergency power to exit signs, egress lighting and other critical loads.

#### Fire Alarm:

The building's fire alarm system is an addressable system with a master station located in room G-1, in the ground-floor facilities management area. The system has been brought up to ADA standards throughout, and includes audio and visual signals, pull stations and smoke detectors.

#### Telecommunications:

The largely county-owned telecommunications system enters the building in the basement from the main terminal in the annex building, and is distributed throughout the facility through panels in chases adjacent to the elevator shaft.